

## PEER REVIEW HISTORY

BMJ Open publishes all reviews undertaken for accepted manuscripts. Reviewers are asked to complete a checklist review form ([see an example](#)) and are provided with free text boxes to elaborate on their assessment. These free text comments are reproduced below. Some articles will have been accepted based in part or entirely on reviews undertaken for other BMJ Group journals. These will be reproduced where possible.

### ARTICLE DETAILS

<b>TITLE (PROVISIONAL)</b>	Nurse and Manager Perceptions of Nurse Initiated and Managed Anti-Retroviral Therapy (NIMART) Implementation in South Africa: A Qualitative Study
<b>AUTHORS</b>	Davies, Natasha; Homfray, Mike; Venables, Emilie

### VERSION 1 - REVIEW

<b>REVIEWER</b>	Nathan Ford WHO, Geneva, Switzerland
<b>REVIEW RETURNED</b>	13-Sep-2013

- The reviewer completed the checklist but made no further comments.

<b>REVIEWER</b>	Connor Emdin Blavatnik School of Government, University of Oxford, United Kingdom
<b>REVIEW RETURNED</b>	15-Sep-2013

<b>GENERAL COMMENTS</b>	<p>Davies et. al study on perceptions of nurse initiated antiretroviral therapy is interesting and would be a very valuable addition to the literature. However, more detail must be added to the methods section and some minor revisions to the language of the paper are needed.</p> <p>Comment throughout: Semi-colons are used in lists to separate items which have internal commas. e.g. I have been to London, England; Paris, France; Berlin, Germany. For any other lists, commas should be used, not semi-colons. <a href="http://www.writingcentre.uottawa.ca/hypergrammar/semicolon.html">http://www.writingcentre.uottawa.ca/hypergrammar/semicolon.html</a></p> <p>Major Revisions</p> <p>Generally, the methods section is not detailed enough. The COREQ guidelines described items which should be reported in qualitative research (<a href="http://intqhc.oxfordjournals.org/content/19/6/349/T1.expansion.html">http://intqhc.oxfordjournals.org/content/19/6/349/T1.expansion.html</a>). I've chosen to highlight some of more important ones below.</p> <ol style="list-style-type: none"><li>1. There is not a description of how the study sites were chosen. Are they representative of healthcare facilities implementing NIMART? Do they have factors which would lead one to believe that they are not representative?</li><li>2. Similarly, how were nurses and managers selected? Were all nurses/managers involved in NIMART at the sites included in the study? Is there a risk of bias in the selection?</li><li>3. How many participants refused to participate or dropped out?</li><li>4. Were prompts or a guide used?</li><li>5. Did the authors have a relationship with the participants prior to interviewing?</li></ol>
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	<p>Minor Revisions</p> <p>Abstract</p> <p>6. "Findings from this study reveal that, despite encountering numerous challenges including human resources; training and clinical mentoring and health systems issues..." should utilize a comma rather than a semi-colon. Semi-colons should only be used when the listed item has an internal comma. - "Findings from this study reveal that, despite encountering numerous challenges including human resources, training and clinical mentoring and health systems issues..." (page 3)</p> <p>7. "NIMART - nurses perceived ART patients to be more insightful about their illness; engaged..." - See above (p 3)</p> <p>8. "NIMART implementation is complex ... improves patient outcomes" - Not grammatical, should be "Although the implementation of NIMART is complex, when NIMART is implemented well, ART access is increased and patient outcomes are improved. (p 4)</p> <p>Key Messages</p> <p>9. "Important enabling factors included..." - again a semi-colon should not be unnecessarily substituted for a comma. (p 4)</p> <p>Methods</p> <p>10. Data analysis: "Coding was performed in stages, ensuring the researcher..." should be "...ensuring that the researcher..." (p. 9)</p> <p>Results</p> <p>11. "Inter-facility networking provided vital opportunity..." should be "Inter-facility networking provided a vital opportunity..." (20)</p> <p>12. "Poor infrastructure also undermined NIMART-nurses' capacity to safeguard patient confidentiality during consultations." (22) - should be capacities</p> <p>Discussion</p> <p>13. In the results you describe the difficulties faced by nurses who are alone in performing NIMART in their respective facilities. You may want to explicitly recommend training groups of nurses at facilities rather than single nurses.</p> <p>14. "A culture of teamwork and problem solving need to be nurtured..." - This sentence is vague. What policies would you recommend to nurture a culture of teamwork and problem solving? (p 26)</p> <p>15. "The importance of expanding lower cadre staff compliments to perform basic tasks, traditionally assigned to nurses, has been stressed elsewhere." and "Importantly, however, facility managers also need to be better capacitated and motivated to effectively manage existing staff compliments..." - Should be complement, not compliment (p 25)</p> <p>16. "The theoretical benefits of teamwork were described by participants working in 'happy' clinics where NIMART" - the benefits are not theoretical if they are being described (p 26)</p> <p>17. "On-going difficulties with referral processes indicate a need to develop and implement effective referral system strengthening interventions." - an example of such an intervention in the context of comments provided by the participants would be helpful (p 28)</p>
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## VERSION 1 – AUTHOR RESPONSE

### Major Revisions:

Utilising the 32 point COREQ checklist and the reviewer's specific Points 1-5, the methods section has been amended. Site and participant selection, refusals/drop-outs, the use of a question framework and any pre-existing relationship between researcher and participants, which may have introduced bias, have now been addressed in this section. Changes are highlighted in italics and bold.

Point 1: There is not a description of how the study sites were chosen. Are they representative of healthcare facilities implementing NIMART? Do they have factors which would lead one to believe that they are not representative?

A description of study site selection, which sought to ensure sites included were representative of facilities which had begun NIMART implementation at the time of the research, has been added to the methods section:

"The study was conducted in early 2011, shortly after South Africa began NIMART roll-out. Few facilities had begun the implementation process so study sites were selected if they had started implementing NIMART and had at least one NIMART-trained nurse. A mixture of urban, peri-urban and rural public primary healthcare (PHC) facilities from two municipalities (City of Johannesburg and Ekurhuleni) in Gauteng Province, South Africa was selected to ensure broad representation of facility types."

Point 2: Similarly, how were nurses and managers selected? Were all nurses/managers involved in NIMART at the sites included in the study? Is there a risk of bias in the selection?

The process of participant selection has been addressed in more detail in response to the reviewer's comment:

"Nurses (n=25, Table 1) from each site were then purposively sampled on the basis that they had completed requisite NIMART-training, although not all had begun initiating patients on ART. At facilities with more than one NIMART-trained nurse, all were invited to participate but typically, to avoid service delivery disruption, one nurse was released to attend the focus group discussion. Manager participants (n =18, Table 1) were invited to join the study if they were actively involved in NIMART implementation at one or more of the study sites."

Point 3: How many participants refused to participate or dropped out?

This question has been addressed with the following revision:

"One nurse refused to participate and two senior managers were unable to attend their scheduled focus group. All participants were South African, one was Caucasian and five were male."

Point 4: Were prompts or a guide used?

The use of an interview and focus group guide has now been stipulated in the following section:

"Three in-depth interviews (provincial manager, facility manager and NIMART-nurse), three nurse focus groups and two manager focus groups (six to ten participants each) were conducted, all in English. Clinically active nurses and facility/programme managers participated in separate focus groups to enable open discussion. Following telephonic recruitment, study participants provided written consent before participating in their allocated discussion. All interviews and focus group

discussions, which were led by one researcher who utilised previously piloted interview and focus group guides, lasted between sixty and ninety minutes. The researcher was supported by a note-taker where possible.”

Point 5: Did the authors have a relationship with the participants prior to interviewing?

This question has been addressed with the following amendment:

“In order to minimise bias during data collection, the researcher (a doctor and nurse-mentor employed by a supporting partner organisation) had no pre-existing relationship with any of the nurses included in the study. She had provided technical support to one of the facility managers prior to NIMART roll-out at that site. None of the other authors had pre-existing relationships with any of the study participants.”

Minor Revisions:

- Points 6, 7, 9: We thank the reviewer for this point and have made changes throughout the article. Semi-colons have been replaced by commas as suggested.
- Points 8, 10, 11, 12: Sentences have been amended as suggested to improve grammar.
- Point 13: Thank you for this suggestion. A sentence has been added to the discussion to encourage the use of on-site training: “Providing on-site NIMART training to several nurses at a facility – as was happening in one district – would address this common problem.”
- Point 14: A concrete example of an intervention which may support teamwork and problem-solving has been added to make this sentence more specific: “Establishment and support of quality improvement teams within facilities may be one means of strengthening this area.”
- Point 15: This error has now been corrected and both ‘compliments’ have been amended to “complements”
- Point 16: theoretical has been removed in response to the reviewer’s comments.
- Point 17: Two examples, inter-facility meetings and standardised feedback forms – both mentioned by participants - have been added as options of possible referral system strengthening interventions: “One option, which some participants felt enhanced communication with up-referral sites, was the introduction of regular inter-facility meetings. This approach should be examined further to establish whether it does indeed improve relationships between staff and thus strengthen referral systems. Standardised written feedback forms, to be used when patients are referred back to their PHC facility, should also be developed and piloted to assess any positive impact on referral processes.”

## VERSION 2 – REVIEW

<b>REVIEWER</b>	Connor Emdin Blavatnik School of Government, University of Oxford
<b>REVIEW RETURNED</b>	12-Oct-2013

- The reviewer completed the checklist but made no further comments.